

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) An access network adapted to communicate with a mobile terminal and packet service nodes in a core network portion (20) of a mobile telecommunications network, said access network comprising:

a plurality of local base stations (301) each defining a mini-cell and adapted to communicate with mobile terminals (1) located in a respective mini-cell over an unlicensed-radio interface (31); and

an access network controller (303) connected to a packet service node in said core network portion and adapted to communicate with said packet service node over a predetermined licensed mobile network interface, and connected to said plurality of local base stations (301);

~~characterised in that~~

said mini-cells (304) are being grouped into at least two packet service cells with at least two mini-cells in each packet service cell and said local base stations (301) are being assigned a cell identifier comprising a first identifier portion that is common for all local base stations connected to said access network controller (303) and a second identifier portion that is common for all local base stations in the same packet service cell but different for local base stations in different packet service cells.

2. (Currently Amended) An access network as claimed in claim 1, wherein ~~characterised in that~~ said access network controller (303) is assigned a cell identifier comprising said first identifier.

3. (Currently Amended) An access network as claimed in claim 1 ~~or 2~~, wherein ~~characterised in that~~ said access network controller (303) is adapted to

communicate to said packet service node (203) location update messages from mobile stations (4) containing first and second identifier portions of a cell identifier.

4. (Currently Amended) An access network as claimed in claim 1 ~~any one of claims 1 to 3, characterised in that~~ wherein said core network comprises a plurality of voice switching nodes, wherein said access network controller (303) is connected to one voice switching node (202), and ~~in that~~ only said first identifier portion is configured in said voice switching nodes in the core network portion.

5. (Currently Amended) An access network as claimed in claim 4. ~~wherein characterised in that~~ said access network controller (303) is adapted to receive a handover request from the voice switching node (202) connected thereto, wherein said handover request contains only said first identifier portion of said cell identifier.

6. (Currently Amended) An access network as claimed in claim 1 ~~any previous claim, characterised in that~~ wherein said local base stations are adapted to communicate said cell identifier to mobile terminals in said mini-cells.

7. (Currently Amended) An access network as claimed in claim 1 ~~any previous claim, further comprising characterised by~~ a fixed broadband network (302) connecting said plurality of local base stations (304) with said access network controller (303).

8. (Currently Amended) An access network as claimed in claim 1 ~~any previous claim, wherein characterised in that~~ said cell identifiers are dynamically assigned to said mini-cells by said access network controller.

9. (New) A method of utilizing an access network for communicating with a mobile terminal and packet service nodes in a core network portion of a mobile telecommunications network, the method comprising:

communicating over an unlicensed radio interface with mobile terminals located in a mini-cell, the mini-cell comprising a plurality of local base stations and

utilizing an access network controller connected to a packet service node in the core network portion for communicating with the packet service node over a predetermined licensed mobile network interface, the access network controller also connected to the plurality of local base stations,

the mini-cells being grouped into at least two packet service cells with at least two mini-cells in each packet service cell and the local base stations being assigned a cell identifier comprising a first identifier portion that is common for all local base stations connected to the access network controller and a second identifier portion *that* is common for all local base stations in the same packet service cell but different for local base stations in different packet service cells.

10. (New) The method as claimed in claim 9, wherein the access network controller is assigned a cell identifier comprising the first identifier.

11. (New) The method as claimed in claim 9 wherein the access network controller is adapted to communicate to the packet service node location update messages from mobile stations containing first and second identifier portions of a cell identifier.

12. (New) The method as claimed in claim 9, wherein the core network comprises a plurality of voice switching nodes, the access network controller is connected to one voice switching node, and only the first identifier portion is configured in the voice switching nodes in the core network portion.

13. (New) The method as claimed in claim 12, the access network controller receiving a handover request from the voice switching node connected thereto, wherein the handover request contains only the first identifier portion of the cell identifier.

14. (New) The method as claimed in claim 9 wherein the local base stations communicating the cell identifier to mobile terminals in the mini-cells.

15. (New) The method as claimed in claim 9 further comprising connecting the plurality of local base stations with the access network controller via a fixed broadband network.

16. (New) The method as claimed in claim 9 further comprising dynamically assigning the cell identifiers to the mini-cells by the access network controller.